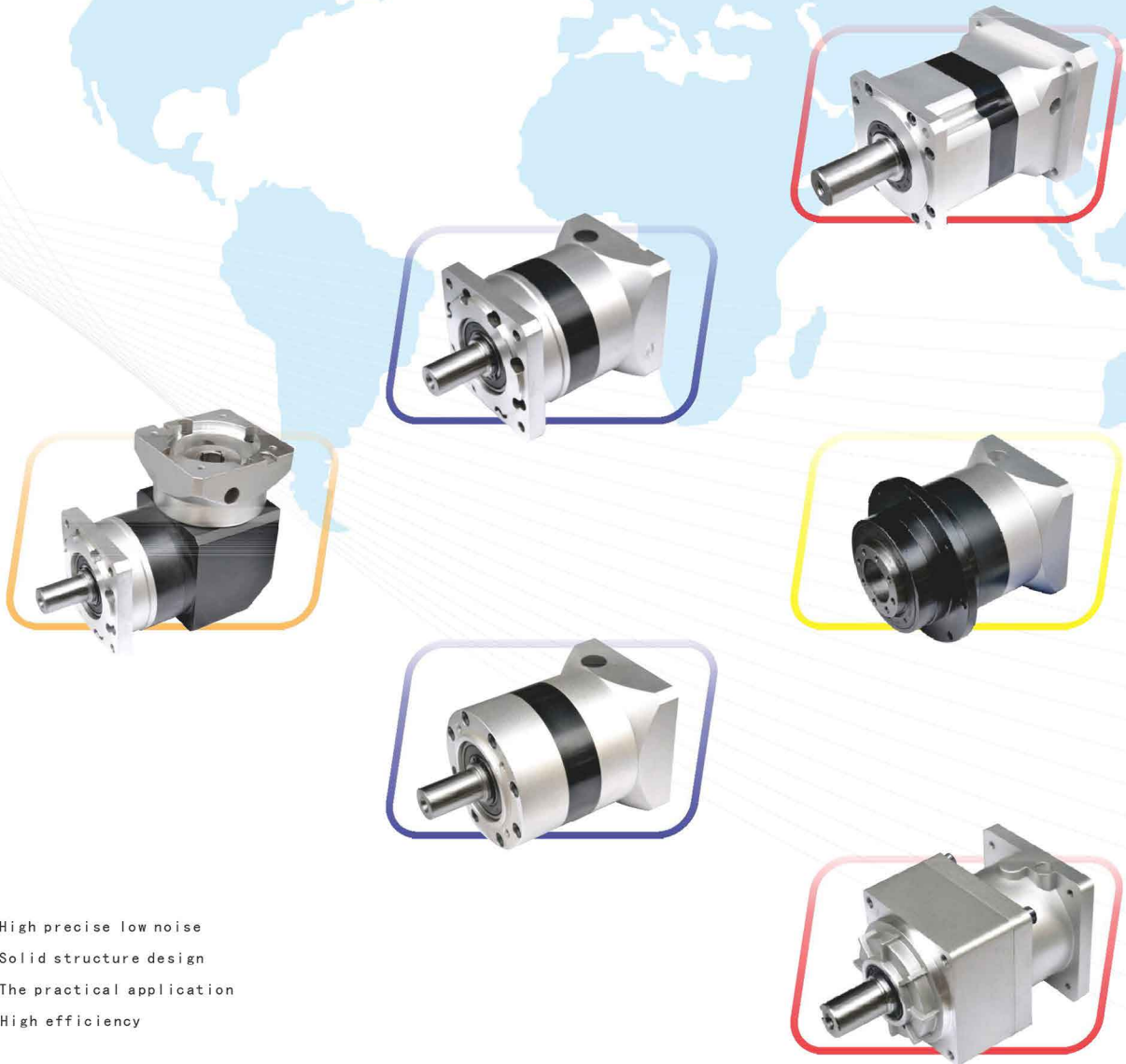


Precision Planetary Gearbox



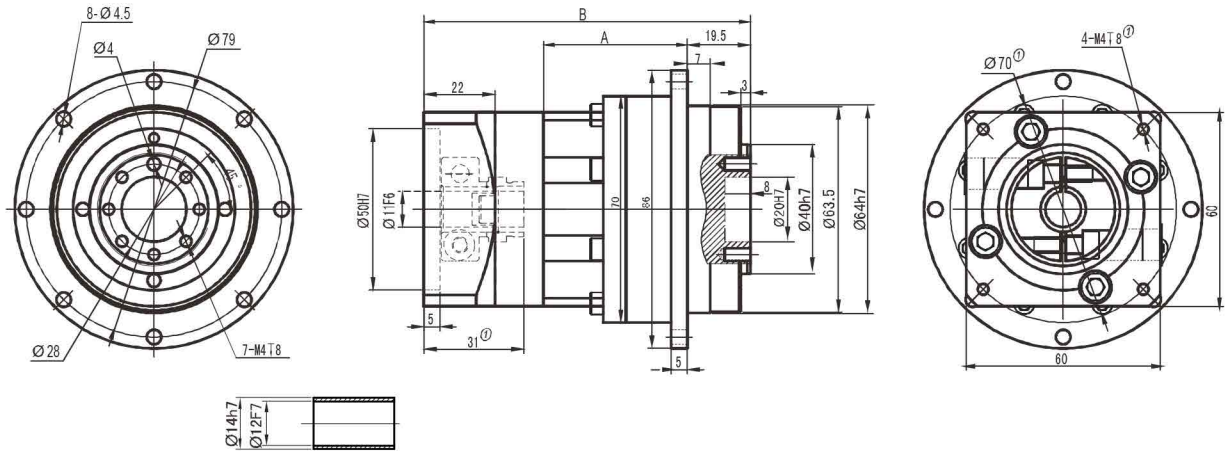
High precise low noise
Solid structure design
The practical application
High efficiency

伍勒斯精密机械有限公司
WOOLARS PRECISION MACHINERY CO., LIMITED

2018版
Product catalogue
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PLH64



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.

View mode

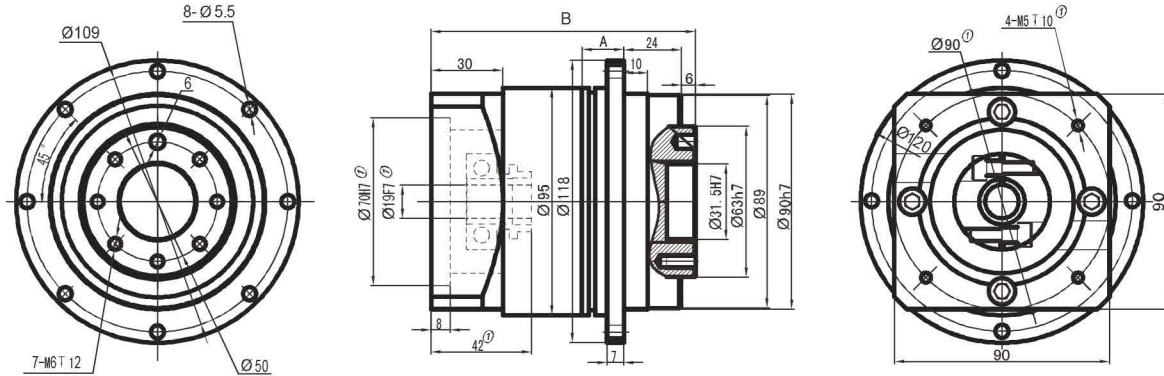
Stage	Stage 1 (i: 3 4 5 7 10)		Stage 2 (i: 12 16 20 25 28 35 40 50 70)				Stage 3 (i: 64 80 100 125 140 175 200 250 350 400 500 700 1000)						
	A	B	A	B	A	B	A	B	A	B			
Length(mm)													
Rated input speed(rpm)	4000		4000				4000						
Maximum input speed(rpm)	8000		8000				8000						
The maximum radial force(N) ^②	300		400				760						
The maximum axial force(N) ^②	280		380				600						
No load torque(Nm)	about 0.6		about 0.3				about 0.3						
Efficiency with full load(%)	96		94				90						
Back lash(arcmin)	<12		<15				<18						
Noise(dB)	≤58		≤58				≤58						
Weight(Kg)	1.1		1.4				1.7						
Average lifetime(h)			>20000										
Torsional rigidity(Nm/arcmin)			1.6										
lubricant	Effective lubrication												
direction of rotation	The input and output to the same												
Protection level	IP65												
Installation	arbitrarily												

Ratio (i)	3	4	5	7	10	12	16	20	25	28	35	40	50	70
Rated output torque(Nm)	16.5	27.0	29.5	19.5	8.5	30.0	30.0	30.0	33.0	30.0	33.0	30.0	33.0	21.5
maximum output torque(Nm)	33.0	54.0	59.0	39.0	17.0	60.0	60.0	60.0	66.0	60.0	66.0	60.0	66.0	43.0
Moment of inertia(Kgcm ²)	0.107	0.094	0.092	0.091	0.091	0.107	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091

Ratio (i)	64	80	100	125	140	175	200	250	280	350	400	500	700	1000
Rated output torque(Nm)	37.5	37.5	37.5	41.0	37.5	41.0	37.5	41.0	37.5	41.0	37.5	41.0	27.0	11.5
maximum output torque(Nm)	75.0	75.0	75.0	82.0	75.0	82.0	75.0	82.0	75.0	82.0	75.0	82.0	54.0	23.0
Moment of inertia(Kgcm ²)	0.092	0.092	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091

Subscript ①: We offer different adapter for different size of motors. Our speed reducer can be matched to any motor.
 Subscript ②: The allowable radial force and axial force are measured at the center of the output shaft (at the 1/2 axis length, stressed at same time), when the output speed is 1 stage 100rpm, 2 stage 50rpm, 3 stage 10rpm.

PLH90



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.

View mode

Stage	Stage 1 (i: 3 4 5 7 10)		Stage 2 (i: 12 16 20 25 28 35 40 50 70)				Stage 3 (i: 64 80 100 125 140 175 200 250 350 400 500 700 1000)							
	A	B	A	B	A	B	A	B	A	B				
Length(mm)	17.5	110.5	17.5	137	90.5	179.0								
Rated input speed(rpm)	3500		3500				3500							
Maximum input speed(rpm)	6000		6000				6000							
The maximum radial force(N) ^②	1050		1450				2600							
The maximum axial force(N) ^②	800		1000				1900							
No load torque(Nm)	about 0.8		about 0.4				about 0.4							
Efficiency with full load(%)	96		94				90							
Back lash(arcmin)	< 12		< 15				< 18							
Noise(dB)	≤ 62		≤ 62				≤ 62							
Weight(Kg)	3.5		4.1				4.7							
Average lifetime(h)			> 20000											
Torsional rigidity(Nm/arcmin)			4.5											
lubricant	Effective lubrication													
direction of rotation	The input and output to the same													
Protection level	IP65													
Installation	arbitrarily													

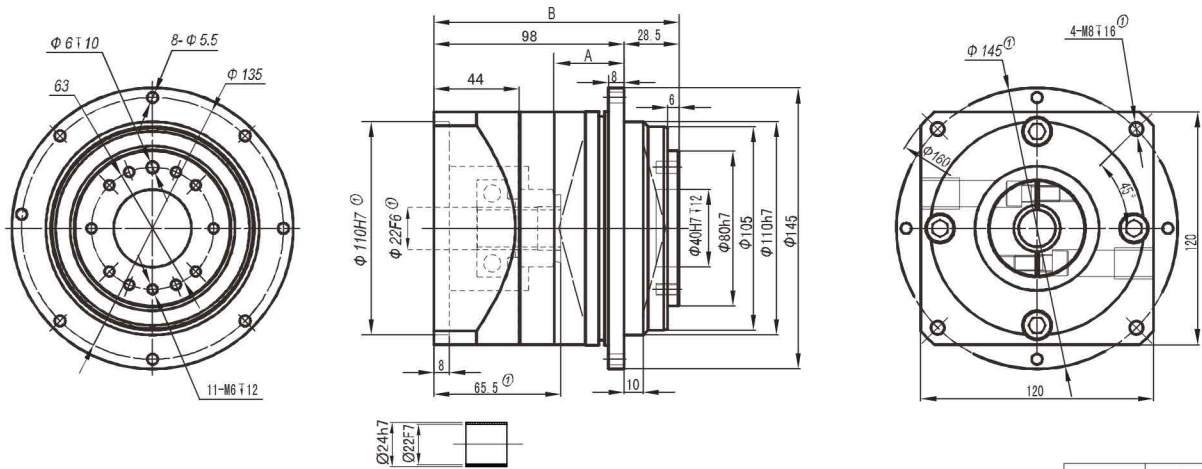
Ratio(i)	3 ^①	4	5	7	10	12 ^①	16	20	25	28	35	40	50	70
Rated output torque(Nm)	60.0	86.0	94.5	64.0	39.5	96.0	96.0	96.0	105.5	96.0	105.5	96.0	105.5	71.5
maximum output torque(Nm)	120.0	172.0	189.0	128.0	79.0	192.0	192.0	192.0	211.0	192.0	211.0	192.0	211.0	143.0
Moment of inertia(Kgcm ²)	0.4	0.309	0.291	0.085	0.283	0.4	0.309	0.291	0.291	0.285	0.285	0.283	0.283	0.283

Ratio(i)	64	80	100	125	140	175	200	250	280	350	400	500	700	1000
Rated output torque(Nm)	120.0	120.0	120.0	132.0	120.0	132.0	120.0	132.0	120.0	132.0	44.0	132.0	89.5	55.0
maximum output torque(Nm)	240.0	240.0	240.0	264.0	240.0	264.0	240.0	264.0	240.0	264.0	88.0	264.0	179.0	110.0
Moment of inertia(Kgcm ²)	0.291	0.291	0.291	0.291	0.285	0.285	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283

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Subscript ②: The allowable radial force and axial force are measured at the center of the output shaft (at the 1/2 axis length, stressed at same time), when the output speed is 1 stage 100rpm, 2 stage 50rpm, 3 stage 10rpm.

PLH110



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.

View mode

Stage	Stage 1 (i: 3 4 5 7 10)		Stage 2 (i: 12 16 20 25 28 35 40 50 70)						Stage 3 (i: 64 80 100 125 140 175 200 250 350 400 500 700 1000)							
	A	B	A	B	A	B	A	B	A	B	A	B	A	B		
Length(mm)	36	126.5	69.5	166.5	128.5	231.0										
Rated input speed(rpm)	3000		3000						3000							
Maximum input speed(rpm)	4800		4800						4800							
The maximum radial force(N) ^②	1300		1800						3300							
The maximum axial force(N) ^②	900		1200						2000							
No load torque(Nm)	about 1.3		about 0.6						about 0.6							
Efficiency with full load(%)	96		94						90							
Back lash(arcmin)	<12		<15						<18							
Noise(dB)	≤65		≤65						≤65							
Weight(Kg)	8.1		10.3						12.5							
Average lifetime(h)			>20000													
Torsional rigidity(Nm/arcmin)			8.9													
lubricant	Effective lubrication															
direction of rotation	The input and output to the same															
Protection level	IP65															
Installation	arbitrarily															

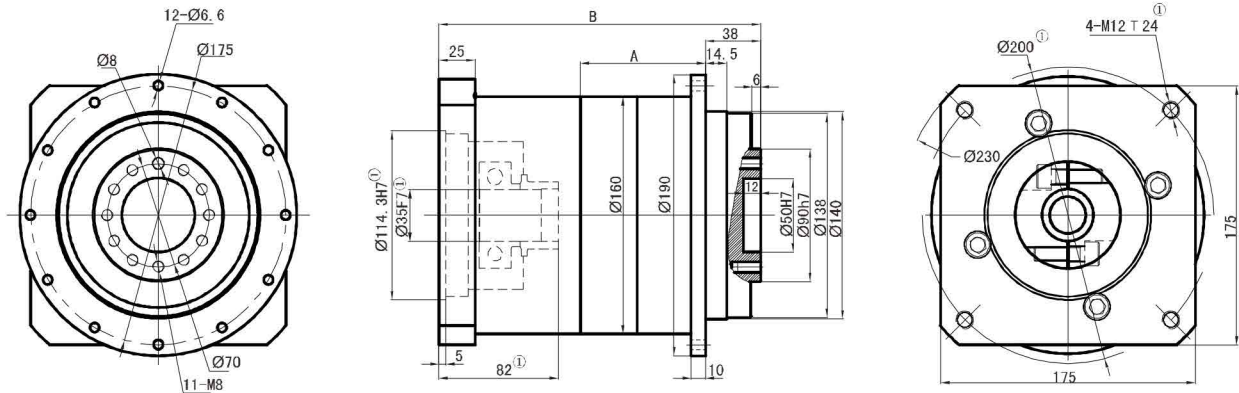
Ratio (i)	3 ^(max speed)	4	5	7	10	12 ^(max speed)	16	20	25	28	35	40	50	70
Rated output torque(Nm)	148.0	222.0	235.0	158.0	93.0	250.0	250.0	250.0	264.0	250.0	264.0	250.0	264.0	177.0
maximum output torque(Nm)	296.0	444.0	470.0	316.0	186.0	500.0	500.0	500.0	528.0	500.0	528.0	500.0	528.0	354.0
Moment of inertia(Kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.65	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.11

Ratio (i)	64	80	100	125	140	175	200	250	280	350	400	500	700	1000
Rated output torque(Nm)	310.0	310.0	310.0	329.0	310.0	329.0	310.0	329.0	310.0	329.0	310.0	329.0	220.0	130.0
maximum output torque(Nm)	620.0	620.0	620.0	658.0	620.0	658.0	620.0	658.0	620.0	658.0	620.0	658.0	440.0	260.0
Moment of inertia(Kgcm ²)	1.15	1.15	1.15	1.15	1.13	1.13	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11

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Subscript ②: The allowable radial force and axial force are measured at the center of the output shaft (at the 1/2 axis length, stressed at same time), when the output speed is 1 stage 100rpm, 2 stage 50rpm, 3 stage 10rpm.

PLH160



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.



Stage	Stage 1 (i: 3 4 5 8)		Stage 2 (i: 12 16 20 25 32 40 64)		Stage 3 (i: 60 64 80 100 120 160 200 256 320 512)	
	A	B	A	B	A	B
Length(mm)	86.0	221.0	125.0	260.0	169.0	299.0
Rated input speed(rpm)	3000		3000		3000	
Maximum input speed(rpm)	4500		4500		4500	
The maximum radial force(N) ^②	2600		3400		6300	
The maximum axial force(N) ^②	1800		2300		4000	
No load torque(Nm)	about 3.2		about 2.1		about 2.1	
Efficiency with full load(%)	96		94		90	
Back lash(arcmin)	<12		<15		<18	
Noise(dB)	≤68		≤68		≤68	
Weight(Kg)	22.5		28.5		34.5	
Average lifetime(h)			>20000			
Torsional rigidity(Nm/arcmin)			25.0			
lubricant	Effective lubrication					
direction of rotation	The input and output to the same					
Protection level	IP65					
Installation	arbitrarily					

Ratio(i)	3	4	5	8	12	16	20	25	32	40	60	64 ^{Stage 2}	64 ^{Stage 3}	80
Rated output torque(Nm)	310.0	605.0	420.0	270.0	680.0	680.0	680.0	460.0	680.0	460.0	900.0	310.0	900.0	900.0
maximum output torque(Nm)	620.0	1210.0	840.0	540.0	1360.0	1360.0	1360.0	920.0	1360.0	920.0	1800.0	620.0	1800.0	1800.0
Moment of inertia(Kgcm ²)	6.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	6.31	4.84	4.93	4.93

Ratio(i)	100	120	160	200	256	320	512							
Rated output torque(Nm)	900.0	580.0	900.0	580.0	900.0	580.0	400.0							
maximum output torque(Nm)	1800.0	1160.0	1800.0	1160.0	1800.0	1160.0	800.0							
Moment of inertia(Kgcm ²)	4.93	4.84	4.84	4.84	4.84	4.84	4.84							

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